BEFORE THE DEPARTMENT OF
NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

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APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 43QJ 30155904 BY PARK CITY SCHOOL DISTRICT #5	)))	**PRELIMINARY DETERMINATION TO GRANT PERMIT**

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On August 10, 2022, Park City School District #5 (Applicant) submitted Application for Beneficial Water Use Permit No. 43QJ 30155904 to the Billings Water Resources Office of the Department of Natural Resources and Conservation (Department or DNRC) for 74 GPM and 8.53 AF for institutional and lawn and garden beneficial uses. The Department published receipt of the Application on its website. The Application was determined to be correct and complete as of November 22, 2022. The Department met with the Applicant's Consultant, Taylor Kasperick of Performance Engineering, on June 9, 2022. Christine Schweigert, Hydrologist, and Jill Lippard, Water Resource Specialist, were present for the Department. An Environmental Assessment for this Application was completed on January 26, 2023.

INFORMATION

The Department considered the following information submitted by the Applicant, which is contained in the administrative record.

Application as filed:

- Application for Beneficial Water Use Permit, Form 600
- Request for Interim Permit
- Attachments
- Maps:
    - Public Water Supply Approval Plan Drawing showing proposed well location and distribution pipeline
    - USGS Park City Quadrangle showing general project location
- Aquifer Test data on Form 633 in electronic format

- Water Demand Calculation sheet for peak demand
- Well logs for the proposed diversion and the unfiled well it is replacing

Information Received after Application Filed

- Email chain dated August 8 and 16, 2022, between Christine Schweigert, DNRC Hydrologist and Taylor Kasperick, PE, Performance Engineering, discussing purpose clarification, acres irrigated, and volume requested.
- Email chain dated August 16 and September 1, 2022, between Christine Schweigert, DNRC Hydrologist, and Jacob Mohrmann, P.G., DNRC Hydrologist discussing the application review, aquifer test and variances from aquifer testing requirements.
- Email chain dated September 1 and 2, 2022, between Christine Schweigert, DNRC Hydrologist, Jacob Mohrmann, P.G., DNRC Hydrologist, and Taylor Kasperick, PE, Performance Engineering discussing the aquifer test including pictures of the flow meter used and an undated aerial image showing the locations of the wells used for testing and observation and the discharge location for aquifer test discharge water.
- Variance Request email dated October 4, 2022
- Email chain dated October 25 and November 3, 2022, between Christine Schweigert, DNRC Hydrologist and John Lunzer, DNRC Hydrologist, discussing the method and results of the estimation technique used to quantify surface water availability in the depleted reach of the Yellowstone River.

Information within the Department's Possession/Knowledge

- Variance Request approval letter dated October 6, 2022
- Groundwater Permit Application Technical Report by Christine Schweigert, Hydrologist and Jacob Mohrmann, P.G., Hydrologist, dated November 22, 2022
- Groundwater Permit Report by Jacob Mohrmann, P.G., Hydrologist dated October 17, 2022
- Data from USGS Gage No. 06214500 Yellowstone River at Billings, MT with a period of record from October 1, 1928, through November 30, 2021

- Data from USGS Gage No.06192500 Yellowstone River near Livingston, MT with a period of record from May 1, 1897, through October 31, 2021
- USGS StreamStats for Montana, Scientific Investigations Report 2015-5019-G *Methods for Estimating Streamflow Characteristics at Ungaged Sites in Western Montana Based on Data through Water Year 2009*
- DNRC Water Right Database
- Letter dated June 7, 2022, from Montana Department of Environmental Quality (DEQ) Water Quality Division to Taylor Kasperick, PE of Performance Engineering, stating that plans and specifications for the proposed Park City School Replacement Well have been reviewed and found to be satisfactory and are approved for drilling and testing of the Public Water Supply (PWS) well
- The Department also routinely considers the following information. The following information is not included in the administrative file for this Application but is available upon request. Please contact the Billings Regional Office at 406-247-4415 to request copies of the following documents.
    - Department Technical Memorandum: *Physical Availability of Surface Water with Gage Data* dated November 1, 2019
    - Department Technical Memorandum: *Physical and Legal Availability of Groundwater* dated April 22, 2019

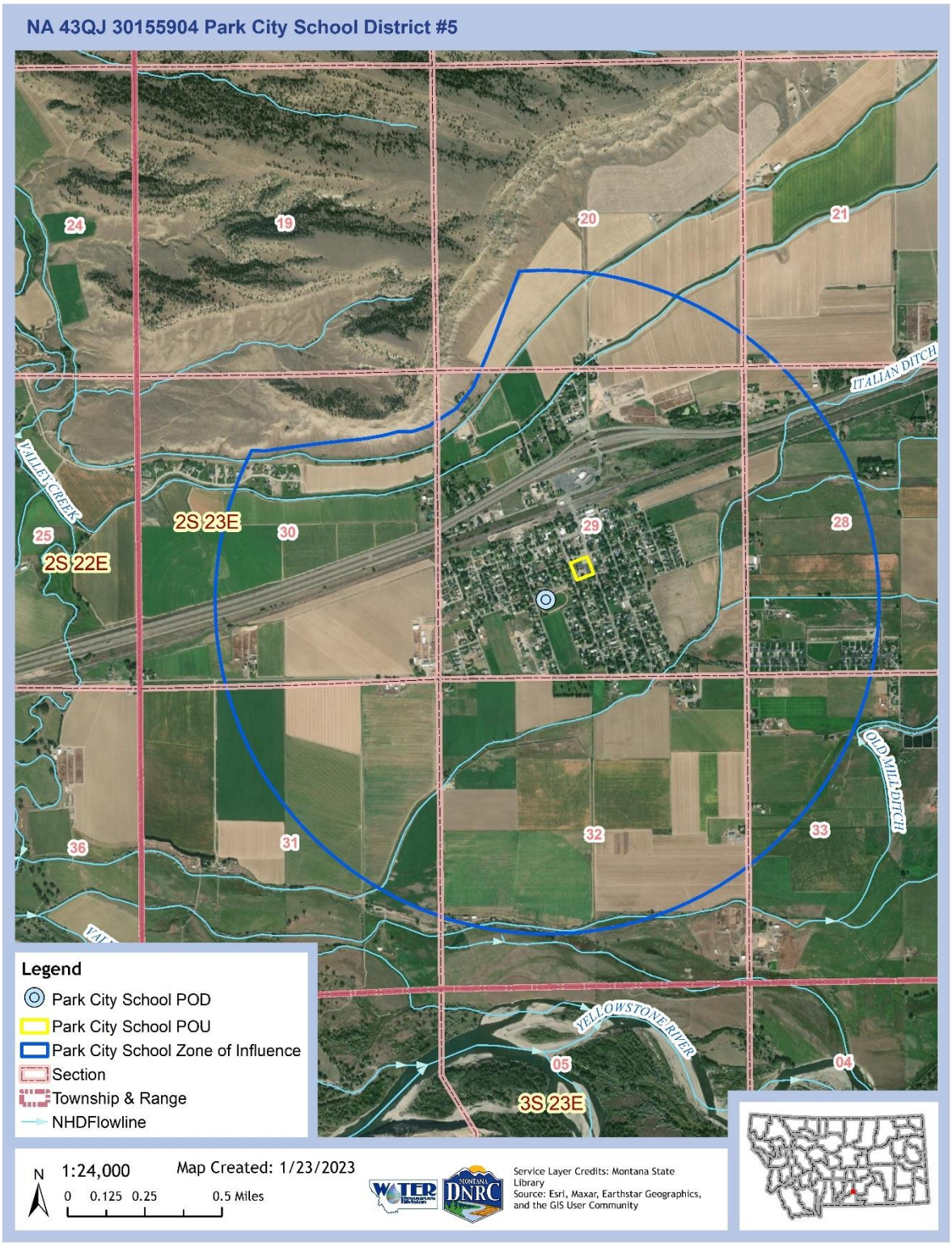
The Department has fully reviewed and considered the evidence and argument submitted in this Application and preliminarily determines the following pursuant to the Montana Water Use Act (Title 85, chapter 2, part 3, MCA). **NOTE:** Department or DNRC means the Department of Natural Resources & Conservation; CFS means cubic feet per second; GPM means gallons per minute; T means Township; R means Range; AF means acre-feet; AC means acres; AF/YR means acre-feet per year; NRCS means Natural Resource Conservation Service; IWR means Irrigation Water Requirement; USDI mean United States Department of the Interior; BLM means Bureau of Land Management; POU means place of use and POD means point of diversion.

PROPOSED APPROPRIATION

FINDINGS OF FACT

1. The Applicant proposes to divert groundwater, by means of a well approximately 45 ft. deep, from January 1 to December 31 for institutional use (Park City School) and from March 15 to November 15 for lawn and garden use at 74 GPM up to 8.4 AF for institutional and up to 0.13 AF for irrigation of 0.07 AC of lawn, from a point in Lots 1-24 Block 126 and Lots 13-24 Block 127 Park City Original Townsite (this is one parcel, where the track and field are located) in the SWNESW Sec. 29, T2S, R23E, Stillwater County. The Applicant proposes to irrigate 0.07 acres of Lawn and Garden. The place of use is in Lots 1-24 Block 113 Park City Original Townsite (one parcel, where the school is located) in SENESW Sec. 29, T2S, R23E, Stillwater County, which is within the city of Park City. The well is approximately 890 feet southwest of the school, on a separate parcel also owned by Park City School District #5.

2. This project is located approximately 1.3 miles north of the Yellowstone River and approximately 1.5 miles east of Valley Creek.


NA 43QJ 30155904 Park City School District #5
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ITALIAN DITCH
VALLEY CREEK
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OLD MILL DITCH
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Park City School POD
Park City School POU
Park City School Zone of Influence
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Map Created: 1/23/2023
Service Layer Credits: Montana State Library
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

§ 85-2-311, MCA, BENEFICIAL WATER USE PERMIT CRITERIA

GENERAL CONCLUSIONS OF LAW

3. The Montana Constitution expressly recognizes in relevant part that:

> (1) All existing rights to the use of any waters for any useful or beneficial purpose are hereby recognized and confirmed.
> (2) The use of all water that is now or may hereafter be appropriated for sale, rent, distribution, or other beneficial use . . . shall be held to be a public use.
> (3) All surface, underground, flood, and atmospheric waters within the boundaries of the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided by law.

Mont. Const. Art. IX, §3. While the Montana Constitution recognizes the need to protect senior appropriators, it also recognizes a policy to promote the development and use of the waters of the state by the public. This policy is further expressly recognized in the water policy adopted by the Legislature codified at § 85-2-102, MCA, which states in relevant part:

> (1) Pursuant to Article IX of the Montana constitution, the legislature declares that any use of water is a public use and that the waters within the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided in this chapter. . . .
> (3) It is the policy of this state and a purpose of this chapter to encourage the wise use of the state's water resources by making them available for appropriation consistent with this chapter and to provide for the wise utilization, development, and conservation of the waters of the state for the maximum benefit of its people with the least possible degradation of the natural aquatic ecosystems. In pursuit of this policy, the state encourages the development of facilities that store and conserve waters for beneficial use, for the maximization of the use of those waters in Montana . . .

4. Pursuant to § 85-2-302(1), MCA, except as provided in §§ 85-2-306 and 85-2-369, MCA, a person may not appropriate water or commence construction of diversion, impoundment, withdrawal, or related distribution works except by applying for and receiving a permit from the Department. See § 85-2-102(1), MCA. An applicant in a beneficial water use permit proceeding must affirmatively prove all of the applicable criteria in § 85-2-311, MCA. Section § 85-2-311(1) states in relevant part:

> … the department shall issue a permit if the applicant proves by a preponderance of evidence that the following criteria are met:

(a) (i) there is water physically available at the proposed point of diversion in the amount that the applicant seeks to appropriate; and

(ii) water can reasonably be considered legally available during the period in which the applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:

(A) identification of physical water availability;

(B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and

(C) analysis of the evidence on physical water availability and the existing legal demands, including but not limited to a comparison of the physical water supply at the proposed point of diversion with the existing legal demands on the supply of water.

(b) the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. In this subsection (1)(b), adverse effect must be determined based on a consideration of an applicant's plan for the exercise of the permit that demonstrates that the applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied;

(c) the proposed means of diversion, construction, and operation of the appropriation works are adequate;

(d) the proposed use of water is a beneficial use;

(e) the applicant has a possessory interest or the written consent of the person with the possessory interest in the property where the water is to be put to beneficial use, or if the proposed use has a point of diversion, conveyance, or place of use on national forest system lands, the applicant has any written special use authorization required by federal law to occupy, use, or traverse national forest system lands for the purpose of diversion, impoundment, storage, transportation, withdrawal, use, or distribution of water under the permit;

(f) the water quality of a prior appropriator will not be adversely affected;

(g) the proposed use will be substantially in accordance with the classification of water set for the source of supply pursuant to 75-5-301(1); and

(h) the ability of a discharge permit holder to satisfy effluent limitations of a permit issued in accordance with Title 75, chapter 5, part 4, will not be adversely affected.

(2) The applicant is required to prove that the criteria in subsections (1)(f) through (1)(h) have been met only if a valid objection is filed. A valid objection must contain substantial credible information establishing to the satisfaction of the department that the criteria in subsection (1)(f), (1)(g), or (1)(h), as applicable, may not be met. For the criteria set forth in subsection (1)(g), only the department of environmental quality or a local water quality district established under Title 7, chapter 13, part 45, may file a valid objection.

To meet the preponderance of evidence standard, “the applicant, in addition to other evidence demonstrating that the criteria of subsection (1) have been met, shall submit hydrologic or other

evidence, including but not limited to water supply data, field reports, and other information developed by the applicant, the department, the U.S. geological survey, or the U.S. natural resources conservation service and other specific field studies." § 85-2-311(5), MCA (emphasis added). The determination of whether an application has satisfied the § 85-2-311, MCA criteria is committed to the discretion of the Department. Bostwick Properties, Inc. v. Montana Dept. of Natural Resources and Conservation, 2009 MT 181, ¶ 21. The Department is required grant a permit only if the § 85-2-311, MCA, criteria are proven by the applicant by a preponderance of the evidence. Id. A preponderance of evidence is "more probably than not." Hohenlohe v. DNRC, 2010 MT 203, ¶¶33, 35.

5. Pursuant to § 85-2-312, MCA, the Department may condition permits as it deems necessary to meet the statutory criteria:

> (1) (a) The department may issue a permit for less than the amount of water requested, but may not issue a permit for more water than is requested or than can be beneficially used without waste for the purpose stated in the application. The department may require modification of plans and specifications for the appropriation or related diversion or construction. The department may issue a permit subject to terms, conditions, restrictions, and limitations it considers necessary to satisfy the criteria listed in 85-2-311 and subject to subsection (1)(b), and it may issue temporary or seasonal permits. A permit must be issued subject to existing rights and any final determination of those rights made under this chapter.

E.g., Montana Power Co. v. Carey (1984), 211 Mont. 91, 96, 685 P.2d 336, 339 (requirement to grant applications as applied for, would result in, "uncontrolled development of a valuable natural resource" which "contradicts the spirit and purpose underlying the Water Use Act."); see also, *In the Matter of Application for Beneficial Water Use Permit No. 65779-76M by Barbara L. Sowers* (DNRC Final Order 1988)(conditions in stipulations may be included if it further compliance with statutory criteria); *In the Matter of Application for Beneficial Water Use Permit No. 42M-80600 and Application for Change of Appropriation Water Right No. 42M-036242 by Donald H. Wyrick* (DNRC Final Order 1994); Admin. R. Mont. (ARM) 36.12.207.

6. The Montana Supreme Court further recognized in Matter of Beneficial Water Use Permit Numbers 66459-76L, Ciotti: 64988-G76L, Starner (1996), 278 Mont. 50, 60-61, 923 P.2d 1073, 1079, 1080, *superseded by legislation on another issue*:

> Nothing in that section [85-2-313], however, relieves an applicant of his burden to meet the statutory requirements of § 85-2-311, MCA, before DNRC may issue that provisional permit. Instead of resolving doubts in favor of appropriation, the Montana Water Use Act requires an applicant to make explicit statutory showings that there are unappropriated waters in the source of supply, that the water rights of a prior appropriator will not be adversely affected, and that the proposed use will not unreasonably interfere with a planned use for which water has been reserved.

See also, Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order* (2011). The Supreme Court likewise explained that:

> .... unambiguous language of the legislature promotes the understanding that the Water Use Act was designed to protect senior water rights holders from encroachment by junior appropriators adversely affecting those senior rights.

Montana Power Co., 211 Mont. at 97-98, 685 P.2d at 340; see also Mont. Const. art. IX §3(1).

7. An appropriation, diversion, impoundment, use, restraint, or attempted appropriation, diversion, impoundment, use, or restraint contrary to the provisions of § 85-2-311, MCA is invalid. An officer, agent, agency, or employee of the state may not knowingly permit, aid, or assist in any manner an unauthorized appropriation, diversion, impoundment, use, or other restraint. A person or corporation may not, directly or indirectly, personally or through an agent, officer, or employee, attempt to appropriate, divert, impound, use, or otherwise restrain or control waters within the boundaries of this state except in accordance with this § 85-2-311, MCA. § 85-2-311(6), MCA.

8. The Department may take notice of judicially cognizable facts and generally recognized technical or scientific facts within the Department's specialized knowledge, as specifically identified in this document. ARM 36.12.221(4).

Physical Availability

FINDINGS OF FACT

9. Department Hydrologist, Jacob Mohrmann, completed a Groundwater Permit Report, dated October 17, 2022. A copy of the report is in the file under the Processing Information and Correspondence flag. The report documents modeled aquifer properties based on a 72-hour aquifer test at an average discharge rate of 81.3 GPM. The Applicant requested and was granted variances from the requirements of ARM 36.12.121(2)(a) and ARM 36.12.121(3)(a, c, j and k).

10. The Department used AQTESOLV® to analyze drawdown data from the aquifer test, obtain estimates of aquifer properties, and model predicted drawdown in existing wells. Drawdown was analyzed using the Neuman (1974) solution for a pumping test in an unconfined aquifer and resulted in an estimated aquifer transmissivity (T) of 7,522 ft^2/day which is within the range of aquifer properties from other aquifer tests within a similar geologic unit. The recommended specific yield (Sy) value of 0.1 is from Lohman (1972) for unconfined sand and gravel aquifers. The evaluation of physical groundwater availability was done by calculating groundwater flux through the zone of influence (ZOI) corresponding to the 0.01-foot drawdown contour. A distance-drawdown plot was generated using the Theis (1935) unconfined solution, a constant pumping rate of 5.3 GPM (flow rate required to produce the requested volume over the proposed period of diversion), T = 7,522 ft^2/day, and Sy = 0.1. The 0.01-foot drawdown contour occurs at 5,700 feet from the Applicant's well. The groundwater gradient for the sand and gravel terrace aquifer in the Park City area is inferred from the Olson (2005) groundwater level contour map. The calculation for groundwater flux (Q) through the delineated area is given by the equation Q = TWi where T = Transmissivity = 7,522 ft^2/day, W = Width of ZOI = 11,400 ft. and i = groundwater gradient (from Olson) = 0.003 ft/ft and is 257,252 ft^3/day or 2,157 AF/YR.

11. The Department finds that the total volume of water physically available at the proposed point of diversion is 2,157 AF/YR.

CONCLUSIONS OF LAW

12. Pursuant to § 85-2-311(1)(a)(i), MCA, an applicant must prove by a preponderance of the evidence that "there is water physically available at the proposed point of diversion in the amount that the applicant seeks to appropriate."

13. It is the applicant's burden to produce the required evidence. *In the Matter of Application for Beneficial Water Use Permit No. 27665-41I by Anson* (DNRC Final Order 1987)(applicant produced no flow measurements or any other information to show the availability of water; permit denied); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005).

14. An applicant must prove that at least in some years there is water physically available at the point of diversion in the amount the applicant seeks to appropriate. *In the Matter of Application for Beneficial Water Use Permit No. 72662s76G by John Fee and Don Carlson* (DNRC Final Order 1990); *In the Matter of Application for Beneficial Water Use Permit No. 85184s76F by Wills Cattle Co. and Ed McLean* (DNRC Final Order 1994).

15. The Applicant has proven that water is physically available at the proposed point of diversion in the amount Applicant seeks to appropriate. § 85-2-311(1)(a)(i), MCA. (FOF 9-11)

Legal Availability:

FINDINGS OF FACT

16. Based on a 0.01-foot drawdown contour at 5,700 feet from the proposed well, truncated at the edge of the Yellowstone River alluvium, the Department identified 253 existing groundwater rights within the ZOI. These water rights are listed in Table 5, at the end of the Department issued Technical Report. That report can be found in the application file under the Processing Information and Correspondence flag. Of these rights, 239 are Groundwater Certificates, 13 are Statements of Claim and 1 is an Exempt Notice. There are 33 Groundwater Certificates which have no volume recorded in the database. Groundwater Certificates with no volume recorded in the database were taken as 1.99 AF which represents the average volume of the 206 Groundwater Certificates for which volumes are recorded. One Statement of Claim, 43QJ 30145292, did not have a volume claimed on the scanned claim form. That claim was taken as 1.5 AF, which represents the DNRC standard volume for domestic use with lawn and garden prior to July 1, 1973. The total legal demand on groundwater within the ZOI is 521.96 AF/YR. Below is a comparison of the water supply and current legal demands for groundwater.

Table 1. Comparison of physically available groundwater to legal demands

Physically Available (AF/YR)	Existing Legal Demands (AF/YR)	Physically Available minus Existing Legal Demands (AF/YR)
2,157	521.96	1,635.04

17. The amount of groundwater available is 2,157 AF/YR and existing legal demands of groundwater total 521.96 AF/YR. The Department finds that the comparison shows that groundwater is legally available (2,157 – 521.96 = 1,653.04 AF). The Applicant is requesting 8.53 AF. The amount of water legally available exceeds the amount requested by the Applicant.

18. The Department's Groundwater Permit Report concludes that surface water depletion from the proposed well will be to the Yellowstone River downstream of the SE corner of Sec. 36, T2S, R22E, Stillwater County. The net depletion is assumed to be equal to consumption on an annual basis unless return flows do not accrete to the potentially affected surface water. The consumptive use for institutional purposes are based on the results of studies by Kimsey and Flood (1987), Vanslyke and Simpson (1974), and Paul, Poeter, and Laws (2007), showing that institutional use with wastewater disposal via municipal wastewater treatment facility is 5% consumptive. Consumption for the Park City School well is estimated to be 5% of the 8.4 AF for institutional use or 0.42 AF; and 70% of the applied 0.13 AF volume for lawn and garden or 0.09 AF, for a total consumed volume of 0.51 AF. The monthly distribution of consumption for irrigation is based on the irrigation water requirement (IWR) as calculated using the NRCS IWR program with inputs consistent with DNRC consumptive use rules in ARM 36.12.1902. As shown in Table 2, depletions to the Yellowstone River are expected to be constant year-round, 0.04 AF per month at a rate of 0.26 – 0.27 GPM.

Table 2. Net depletion to Yellowstone River by pumping of the proposed well

Month	Total Consumed (AF)	Yellowstone River Depletion (AF)	Yellowstone River Depletion (GPM)
January	0.04	0.04	0.27
February	0.03	0.04	0.26
March	0.04	0.04	0.26
April	0.04	0.04	0.26
May	0.05	0.04	0.26

June	0.05	0.04	0.26
July	0.06	0.04	0.26
August	0.06	0.04	0.26
September	0.05	0.04	0.27
October	0.04	0.04	0.27
November	0.03	0.04	0.27
December	0.04	0.04	0.27
Total	**0.51**	**0.51**	

19. The area of potential impact is the two-mile stretch of the Yellowstone River beginning at the top of the depleted reach, from the SE corner of Sec. 36, T2S, R22E to the eastern edge of Sec. 5, T3S, R23E, Stillwater County. A river as dynamic as the Yellowstone will fluctuate by more than the maximum modeled depletion of 0.27 GPM in any given reach. This area of potential impact includes the confluences of the Yellowstone River with Valley Creek, Bellion Creek and three unnamed tributaries.

20. The Department estimated the available flow at the top of the depleted reach (ungaged site) using the Between Gages: Interpolation method, as outlined in the Department's Technical Memorandum: *Physical Availability of Surface Water with Gage Data*, dated November 1, 2019. The results were compared with the data from the upstream gage at Livingston (06192500) and the downstream gage at Billings (06214500). After consultation with Water Sciences Bureau staff, it was decided that the results from the interpolation method were reasonable although the ungaged area is outside of the suggested parameters of $0.5A_g$ -$1.5A_g$ for the Billings gaged area. Where there is both an upstream and downstream gaging station relative to the depleted reach on the same source, the equation (equation 11) from USGS (2015) Stream Stats, Chapter G, p. 13 for Montana can be used to make a logarithmic linear interpolation between the two gages: $logQu=logQg1+(logQg2-logQg1/logAg2-logAg1)$ x $(logAu-logAg1)$ where Q_u is the streamflow characteristic, A is the contributing drainage area, and subscripts u, g1 and g2 refer to the ungaged site and the gaged sites 1 and 2, respectively.

21. Below are tables of estimated median of the mean monthly flow rates and volumes used to quantify physical availability of surface water at the top of the depleted reach. Volume was calculated by multiplying the median flow by 1.98 and by the number of days in each month.

Table 3. Flow at ungaged site – using USGS gages at Livingston and Billings (CFS)

	Median at gage 1 (Livingston 06192500 – upstream)	Median at gage 2 (Billings 06214500– downstream)	Interpolated flow at ungaged site*
January	1,194	2,533	2,027
February	1,187	2,534	2,024
March	1,297	2,895	2,282
April	1,909	3,962	3,191
May	7,207	12,890	10,835
June	13,130	23,740	19,917
July	7,408	12,450	10,674
August	3,348	4,578	4,172
September	2,278	3,721	3,217
October	1,917	3,917	3,169
November	1,644	3,572	2,838
December	1,363	2,809	2,267

*Interpolated flow was rounded to the nearest whole number

Table 4. Volume at ungaged site – using USGS gages at Livingston and Billings (AF)

	Median at gage 1 (Livingston 06192500– upstream)	Median at gage 2 (Billings 06214500– downstream)	Interpolated volume at ungaged site*
January	73,288	155,476	124,400
February	65,807	140,485	112,197
March	79,579	177,695	140,052
April	113,395	235,343	189,532
May	442,366	791,188	665,071
June	779,922	1,410,156	1,183,062
July	454,703	764,181	655,163
August	205,470	280,998	256,102
September	135,313	221,027	191,101
October	117,635	240,425	194,524
November	97,654	212,177	168,570
December	83,661	172,416	139,144

*Interpolated volume was rounded to the nearest whole number

22. There is one legal demand within the area of potential impact. Statement of Claim no. 43QJ 30140115 is owned by the USDI BLM and is for 25 animal units (AU) drinking directly from the Yellowstone River. This claim is taken at 35 GPM (0.08 CFS) up to 0.85 AF/YR,

based on the Department's Adjudication standard of 30 gallons per day per AU. Below is a comparison of the physical water supply and current legal demand for the depleted reach of the Yellowstone River.

Table 5. Comparison of physically available water and legal demands on Yellowstone River

Month	Physical Availability (CFS)	Existing Legal Demands (CFS)	Physical – Legal (CFS)	Physical Availability (AF)	Existing Legal Demands (AF)	Physical – Legal (AF)
January	2,026.73	0.08	2,026.65	124,400.64	0.07	124,400.57
February	2,023.76	0.08	2,023.68	112,197.31	0.07	112,197.24
March	2,281.73	0.08	2,281.65	140,052.34	0.07	140,052.27
April	3,190.79	0.08	3,190.71	189,532.91	0.07	189,532.84
May	10,835.32	0.08	10,835.24	665,071.73	0.07	665,071.66
June	19,916.88	0.08	19,916.80	1,183,062.81	0.07	1,183,062.74
July	10,673.89	0.08	10,673.81	655,163.06	0.07	655,162.99
August	4,172.41	0.08	4,172.33	256,102.56	0.07	256,102.49
September	3,217.20	0.08	3,217.12	191,101.68	0.07	191,101.61
October	3,169.18	0.08	3,169.10	194,524.11	0.07	194,524.04
November	2,837.89	0.08	2,837.81	168,570.40	0.07	168,570.33
December	2,266.94	0.08	2,266.86	139,144.93	0.07	139,144.86

23. Physically available water minus legal demands within the depleted reach of Yellowstone River exceeds the 26-27 GPM flow rate and 0.04 AF volume of monthly modeled depletions resulting from the Applicant's request in all months.

CONCLUSIONS OF LAW

24. Pursuant to § 85-2-311(1)(a), MCA, an applicant must prove by a preponderance of the evidence that:

(ii) water can reasonably be considered legally available during the period in which the applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:

(A) identification of physical water availability;

(B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and

(C) analysis of the evidence on physical water availability and the existing legal demands, including but not limited to a comparison of the physical water supply at the proposed point of diversion with the existing legal demands on the supply of water.

E.g., ARM 36.12.101 and 36.12.120; Montana Power Co., 211 Mont. 91, 685 P.2d 336 (Permit granted to include only early irrigation season because no water legally available in late irrigation season); *In the Matter of Application for Beneficial Water Use Permit No. 81705-g76F by Hanson* (DNRC Final Order 1992).

25. It is the applicant's burden to present evidence to prove water can be reasonably considered legally available. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7 (the legislature set out the criteria (§ 85-2-311, MCA) and placed the burden of proof squarely on the applicant. The Supreme Court has instructed that those burdens are exacting.); see also Matter of Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Royston (1991), 249 Mont. 425, 816 P.2d 1054 (burden of proof on applicant in a change proceeding to prove required criteria); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005))(it is the applicant's burden to produce the required evidence.); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 by Utility Solutions, LLC* (DNRC Final Order 2007)(permit denied for failure to prove legal availability); see also ARM 36.12.1705.

26. Pursuant to Montana Trout Unlimited v. DNRC, 2006 MT 72, 331 Mont. 483, 133 P.3d 224, the Department recognizes the connectivity between surface water and ground water and the effect of pre-stream capture on surface water. E.g., Wesmont Developers v. DNRC, CDV-2009-823, Montana First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 7-8; *In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 and 41H 30013629 by Utility Solutions LLC* (DNRC Final Order 2006)(mitigation of depletion required), *affirmed*, Faust v. DNRC et al., Cause No. CDV-2006-886, Montana First Judicial District (2008); see also Robert and Marlene Takle v. DNRC *et al.*, Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994) (affirming DNRC denial of Applications for Beneficial Water Use Permit Nos. 76691-76H, 72842-76H, 76692-76H and 76070-76H; underground tributary flow cannot be taken to the detriment of other appropriators including surface appropriators and ground water appropriators must prove unappropriated surface water,

citing Smith v. Duff, 39 Mont. 382, 102 P. 984 (1909), and Perkins v. Kramer, 148 Mont. 355, 423 P.2d 587 (1966)); *In the Matter of Beneficial Water Use Permit No. 80175-s76H by Tintzman* (DNRC Final Order 1993)(prior appropriators on a stream gain right to natural flows of all tributaries in so far as may be necessary to afford the amount of water to which they are entitled, *citing* Loyning v. Rankin (1946), 118 Mont. 235, 165 P.2d 1006; Granite Ditch Co. v. Anderson (1983), 204 Mont. 10, 662 P.2d 1312; Beaverhead Canal Co. v. Dillon Electric Light & Power Co. (1906), 34 Mont. 135, 85 P. 880); *In the Matter of Beneficial Water Use Permit No.* 63997-*42M by Joseph F. Crisafulli* (DNRC Final Order 1990)(since there is a relationship between surface flows and the ground water source proposed for appropriation, and since diversion by applicant's well appears to influence surface flows, the ranking of the proposed appropriation in priority must be as against all rights to surface water as well as against all groundwater rights in the drainage.) Because the applicant bears the burden of proof as to legal availability, the applicant must prove that the proposed appropriation will not result in prestream capture or induced infiltration and cannot limit its analysis to ground water. § 85-2-311(a)(ii), MCA. Absent such proof, the applicant must analyze the legal availability of surface water in light of the proposed ground water appropriation. *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 By Utility Solutions LLC* (DNRC Final Order 2007) (permit denied); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (DNRC Final Order 2009); Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 5 ; Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 11-12.

27. Where a proposed ground water appropriation depletes surface water, applicant must prove legal availability of amount of depletion of surface water throughout the period of diversion either through a mitigation /aquifer recharge plan to offset depletions or by analysis of the legal demands on, and availability of, water in the surface water source. Robert and Marlene Takle v. DNRC *et al.*, Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994); *In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 and 41H 30013629 by Utility Solutions LLC* (DNRC Final Order 2006)(permits

granted), *affirmed*, Faust v. DNRC et al., Cause No. CDV-2006-886, Montana First Judicial District (2008); *In the Matter of Application for Beneficial Water Use Permit 41H 30019215 by Utility Solutions LLC* (DNRC Final Order 2007*)*(permit granted), *affirmed*, Montana River Action Network et al. v. DNRC et al., Cause No. CDV-2007-602, Montana First Judicial District (2008); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 by Utility Solutions LLC* (DNRC Final Order 2007) (permit denied for failure to analyze legal availability outside of irrigation season (where mitigation applied)); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 by Utility Solutions LLC* (DNRC Final Order 2008); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (DNRC Final Order 2009)(permit denied in part for failure to analyze legal availability for surface water depletion); Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision,* (2011) Pg. 5 (Court affirmed denial of permit in part for failure to prove legal availability of stream depletion to slough and Beaverhead River); Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 11-12 ("DNRC properly determined that Wesmont cannot be authorized to divert, either directly or indirectly, 205.09 acre-feet from the Bitterroot River without establishing that the water does not belong to a senior appropriator"; applicant failed to analyze legal availability of surface water where projected surface water depletion from groundwater pumping); *In the Matter of Application for Beneficial Water Use Permit No. 76D-30045578 by GBCI Other Real Estate, LLC* (DNRC Final Order 2011) (in an open basin, applicant for a new water right can show legal availability by using a mitigation/aquifer recharge plan or by showing that any depletion to surface water by groundwater pumping will not take water already appropriated; development next to Lake Koocanusa will not take previously appropriated water). Applicant may use water right claims of potentially affected appropriators as a substitute for "historic beneficial use" in analyzing legal availability of surface water under § 85-2-360(5), MCA. Royston, supra.

28. Applicant has proven by a preponderance of the evidence that water can reasonably be considered legally available during the period in which the applicant seeks to appropriate, in the

amount requested, based on the records of the Department and other evidence provided to the Department.§ 85-2-311(1)(a)(ii), MCA. (FOF 16-23)

Adverse Effect

FINDINGS OF FACT

29. The Applicant's plan to prevent adverse effect is to switch to bottled water for potable use in the case of a low water event and call is made.

30. Department Hydrologist, Jacob Mohrmann, modeled drawdown in other wells using the aquifer properties above (FOF 9) and a monthly pumping schedule (below) accounting for institutional and lawn and garden uses. The monthly pumping schedule is obtained by evenly distributing the requested institutional diverted volume of the new well throughout the year and apportioning the requested lawn and garden irrigation diverted volume of the well based on the monthly net irrigation requirement from the Billings Water Treatment Plant (WTP) station in the IWR program. Modeled drawdown was greatest at the end of July of the fifth year of pumping. No wells are expected to experience drawdown in excess of 1 foot.

Table 6. Distributed monthly pumping schedule for Park City School well

Month	IWR Billings WTP (in)	Irrigation Diversion (AF)	Irrigation Diversion (GPM)	Institutional Diversion (AF)	Institutional Diversion (GPM)	Total Diversion (AF)	Total Diversion (GPM)
January	0.00	0.00	0.00	0.71	5.21	0.71	5.21
February	0.00	0.00	0.00	0.64	5.21	0.64	5.21
March	0.00	0.00	0.00	0.71	5.21	0.71	5.21
April	1.44	0.01	0.05	0.69	5.21	0.70	5.26
May	3.01	0.02	0.11	0.71	5.21	0.73	5.32
June	4.88	0.02	0.19	0.69	5.21	0.72	5.39
July	6.58	0.03	0.24	0.71	5.21	0.75	5.45
August	5.84	0.03	0.22	0.71	5.21	0.74	5.42
September	3.00	0.02	0.11	0.69	5.21	0.71	5.32
October	0.98	0.00	0.04	0.71	5.21	0.72	5.24
November	0.00	0.00	0.00	0.69	5.21	0.69	5.21
December	0.00	0.00	0.00	0.71	5.21	0.71	5.21
Total	25.73	0.13		8.4		8.53	

31. Based on available water in excess of legal demands on the depleted surface water source (FOF 20-23), groundwater modeling that indicates that no water rights would experience

drawdown equal to or in excess of one foot (FOF 30), and the Applicant's plan to prevent adverse effect from the proposed groundwater appropriation (FOF 29), the Department finds that the proposed appropriation will not cause adverse effect to existing water rights or reservations.

CONCLUSIONS OF LAW

32. Pursuant to § 85-2-311(1)(b), MCA, the Applicant bears the affirmative burden of proving by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. Analysis of adverse effect must be determined based on a consideration of an applicant's plan for the exercise of the permit that demonstrates that the applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied. See Montana Power Co. (1984), 211 Mont. 91, 685 P.2d 336 (purpose of the Water Use Act is to protect senior appropriators from encroachment by junior users); Bostwick Properties, Inc. ¶ 21.

33. An applicant must analyze the full area of potential impact under the § 85-2-311, MCA criteria. *In the Matter of Beneficial Water Use Permit No. 76N-30010429 by Thompson River Lumber Company* (DNRC Final Order 2006). While § 85-2-361, MCA, limits the boundaries expressly required for compliance with the hydrogeologic assessment requirement, an applicant is required to analyze the full area of potential impact for adverse effect in addition to the requirement of a hydrogeologic assessment. Id. ARM 36.12.120(8).

34. Applicant must prove that no prior appropriator will be adversely affected, not just the objectors. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 4.

35. In analyzing adverse effect to other appropriators, an applicant may use the water rights claims of potentially affected appropriators as evidence of their "historic beneficial use." See Matter of Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Royston (1991), 249 Mont. 425, 816 P.2d 1054.

36. It is the applicant's burden to produce the required evidence. E.g., Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision,* (2011) Pg. 7

(legislature has placed the burden of proof squarely on the applicant); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005). (DNRC Final Order 2005). The Department is required to grant a permit only if the § 85-2-311, MCA, criteria are proven by the applicant by a preponderance of the evidence. Bostwick Properties, Inc. ¶ 21.

37. Section 85-2-311 (1)(b) of the Water Use Act does not contemplate a de minimis level of adverse effect on prior appropriators. Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pg. 8.

38. The Applicant has proven by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. § 85-2-311(1)(b), MCA. (FOF 31)

Adequate Diversion

FINDINGS OF FACT

39. The evaluation of adequacy of diversion was modeled using the Theis (1935) unconfined solution with a T = 7,522 ft^2/day and Sy = 0.1 (Lohman, 1972). The monthly pumping schedule, as shown in Table 6 above, was obtained by evenly distributing the requested institutional volume of the new use throughout the year and apportioning the requested irrigation volume for the 0.07 acres of irrigated area based on the net irrigation water requirement (IWR) from the Billings Water Treatment Plant station in the IWR program (NRCS, 2003).

40. Well efficiency was calculated from modeling the well's theoretical drawdown and dividing that by the observed drawdown. The theoretical drawdown at the pumping test rate was modeled to be 2.3 ft. below the static water level (SWL) of 17 ft. The well efficiency for the proposed well is 93%. The actual drawdown with well loss is calculated by applying the well efficiency to the maximum theoretical drawdown observed at the end of July using the monthly pumping rates shown in Table 3 (page 9) of the Groundwater Permit Report. The predicted drawdown at the estimated pumping schedule based on the proposed uses with well loss is 0.22 feet. The estimated remaining available water column is 28.68 feet. Total maximum drawdown was modeled as the sum of actual drawdown and modeled well interference drawdown.

41. The well was drilled by a licensed water well contractor and was used for the aquifer test. It has a 6-inch casing and is 45 ft. deep with slotted screens from 39-44 ft. within a sand and gravel layer. The well was tested at a greater rate than that requested for the proposed appropriation for a duration of 72 hours. The new well is being plumbed into the existing plumbing system which has been in use for many years.

42. The Department finds the means of diversion, construction, and operation of the appropriation works are adequate for the beneficial use.

CONCLUSIONS OF LAW

43. Pursuant to § 85-2-311(1)(c), MCA, an Applicant must demonstrate that the proposed means of diversion, construction, and operation of the appropriation works are adequate.

44. The adequate means of diversion statutory test merely codifies and encapsulates the case law notion of appropriation to the effect that the means of diversion must be reasonably effective, i.e., must not result in a waste of the resource. *In the Matter of Application for Beneficial Water Use Permit No. 33983s41Q by Hoyt* (DNRC Final Order 1981); § 85-2-312(1)(a), MCA.

45. Water wells must be constructed according to the laws, rules, and standards of the Board of Water Well Contractors to prevent contamination of the aquifer. *In the Matter of Application for Beneficial Water Use Permit No.* 41I-105511 *by Flying J Inc.* (DNRC Final Order 1999).

46. Information needed to prove that proposed means of diversion, construction, and operation of the appropriation works are adequate varies, based upon project complexity design by licensed engineer adequate. *In the Matter of Application for Beneficial Water Use Permit No. 41C-11339900 by Three Creeks Ranch of Wyoming LLC* (DNRC Final Order 2002).

47. Applicant has proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. § 85-2-311(1)(c), MCA (FOF 39-42).

Beneficial Use

FINDINGS OF FACT

48. The Applicant is requesting 74 GPM up to 8.4 AF for institutional use and up to 0.13 AF for irrigation of 0.07 acres of lawn. Institutional use and lawn irrigation are recognized beneficial uses under the Montana Water Use Act.

49. The requested flow rate of 74 GPM is based on the peak demand calculated using the number and type of plumbing fixtures in the school. Lawn and garden irrigation will require approximately 35 GPM and will occur off school hours, so the flow rate required for that is included in the 74 GPM requested. The requested volume is based on the number of people in the school and the acres proposed for irrigation. The 8.4 AF volume for institutional use is based on 300 students and faculty at a rate of 25 gallons per day per person. The 0.13 AF volume for lawn irrigation is based on the DNRC standard of 2.5 AF/AC on 0.07 AC.

50. The Department finds the proposed appropriation to be a beneficial use of water.

CONCLUSIONS OF LAW

51. Under § 85-2-311(1)(d), MCA, an Applicant must prove by a preponderance of the evidence the proposed use is a beneficial use.

52. #An appropriator may appropriate water only for a beneficial use. See also, § 85-2-301 MCA. It is a fundamental premise of Montana water law that beneficial use is the basis, measure, and limit of the use. E.g., McDonald, supra; Toohey v. Campbell (1900), 24 Mont. 13, 60 P. 396. The amount of water under a water right is limited to the amount of water necessary to sustain the beneficial use. E.g., Bitterroot River Protective Association v. Siebel, *Order on Petition for Judicial Review*, Cause No. BDV-2002-519, Montana First Judicial District Court, Lewis and Clark County (2003), *affirmed on other grounds*, 2005 MT 60, 326 Mont. 241, 108 P.3d 518; *In The Matter Of Application For Beneficial Water Use Permit No. 43C 30007297 by Dee Deaterly* (DNRC Final Order), *affirmed other grounds*, Dee Deaterly v. DNRC *et al*, Cause No. 2007-186, Montana First Judicial District, *Order Nunc Pro Tunc on Petition for Judicial Review* (2009); Worden v. Alexander (1939), 108 Mont. 208, 90 P.2d 160; Allen v. Petrick (1924), 69 Mont. 373, 222 P. 451; *In the Matter of Application for Beneficial Water Use Permit No. 41S-105823 by French* (DNRC Final Order 2000).

53. Amount of water to be diverted must be shown precisely. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision,* (2011) Pg. 3 (citing BRPA v. Siebel, 2005 MT 60, and rejecting applicant's argument that it be allowed to appropriate 800 acre-feet when a typical year would require 200-300 acre-feet).

54. Applicant proposes to use water for institutional and lawn and garden purposes which are recognized beneficial uses. § 85-2-102(5), MCA. The Applicant has proven by a preponderance of the evidence that institutional use and lawn irrigation are beneficial uses and that 8.53 AF of diverted volume, and 74 GPM of water requested is the amount needed to sustain the beneficial uses. § 85-2-311(1)(d), MCA. (48-50)

Possessory Interest

FINDINGS OF FACT

55. The Applicant signed the application form affirming the applicant has possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use.

CONCLUSIONS OF LAW

56. Pursuant to § 85-2-311(1)(e), MCA, an Applicant must prove by a preponderance of the evidence that it has a possessory interest or the written consent of the person with the possessory interest in the property where the water is to be put to beneficial use, or if the proposed use has a point of diversion, conveyance, or place of use on national forest system lands, the applicant has any written special use authorization required by federal law to occupy, use, or traverse national forest system lands for the purpose of diversion, impoundment, storage, transportation, withdrawal, use, or distribution of water under the permit.

57. Pursuant to ARM 36.12.1802:

> (1) An applicant or a representative shall sign the application affidavit to affirm the following:
> (a) the statements on the application and all information submitted with the application are true and correct and

(b) except in cases of an instream flow application, or where the application is for sale, rental, distribution, or is a municipal use, or in any other context in which water is being supplied to another and it is clear that the ultimate user will not accept the supply without consenting to the use of water on the user's place of use, the applicant has possessory interest in the property where the water is to be put to beneficial use or has the written consent of the person having the possessory interest.
(2) If a representative of the applicant signs the application form affidavit, the representative shall state the relationship of the representative to the applicant on the form, such as president of the corporation, and provide documentation that establishes the authority of the representative to sign the application, such as a copy of a power of attorney.
(3) The department may require a copy of the written consent of the person having the possessory interest.

58. The Applicant has proven by a preponderance of the evidence that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. § 85-2-311(1)(e), MCA. (FOF 50)

PRELIMINARY DETERMINATION

Subject to the terms, analysis, and conditions in this Order, the Department preliminarily determines that this Application for Beneficial Water Use Permit No. 43QJ 30155904 should be GRANTED.

The Department determines the Applicant may divert groundwater, by means of a well, 45 ft deep, from January 1 through December 31 at 74 GPM up to 8.53 AF, from a point on Lots 1-24 Block 113 Park City Original Townsite in the SENESW Sec. 29, T2S, R23E, Stillwater County, for institutional use up to 8.4 AF from January 1 through December 31 and for Lawn and Garden irrigation up to 0.13 AF from March 15 through November 15 on 0.07 AC. The place of use is located on Lots 1-24 Block 126 and Lots 13-24 Block 127 Park City Original Townsite in the SWNESW Sec. 29, T2S, R23E, Stillwater County.

NOTICE

This Department will provide public notice of this Application and the Department's Preliminary Determination to Grant pursuant to §§ 85-2-307, MCA. The Department will set a deadline for objections to this Application pursuant to §§ 85-2-307, and -308, MCA. If this Application receives no valid objection or all valid objections are unconditionally withdrawn, the Department will grant this Application as herein approved. If this Application receives a valid objection, the application and objection will proceed to a contested case proceeding pursuant to Title 2 Chapter 4 Part 6, MCA, and § 85-2-309, MCA. If valid objections to an application are received and withdrawn with stipulated conditions and the department preliminarily determined to grant the permit or change in appropriation right, the department will grant the permit or change subject to conditions necessary to satisfy applicable criteria.

DATED this 2nd day of February 2023.

/Original signed by Mark Elison/
Mark Elison, Manager
Billings Regional Office
Department of Natural Resources and Conservation

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 2nd day of February 2023, by first class United States mail.

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_____ _____

CHRISTINE SCHWEIGERT DATE